

2. On Chinese Mammals, principally from Western Sechuen.
By W. E. DE WINTON, F.Z.S. With Notes on Chinese
Squirrels. By F. W. STYAN, F.Z.S.

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(Plates XXXI. & XXXII.)

In 'The Ibis' of April for this year (1899, p. 289) will be found, in a paper on "Birds from West China," a condensed account of a collecting-trip made by two native collectors employed by Mr. F. W. Styan, F.Z.S. The mammals obtained on this trip have been put into my hands for description; Mr. Styan having himself written the part on the Squirrels, after looking over the specimens from that country in the Paris Museum.

The British Museum is much indebted to Mr. Styan for many interesting specimens in different branches of natural history, and I have now to record the gift of a fine series of Chinese Squirrels.

Other small mammals collected in China in well-known localities, such as have been mentioned in recently published accounts, are not referred to in this paper.

Western Sechuen has been visited by very few collectors, and the fauna is principally known from collections brought home by Père David, and more recently by Berezowski; but it will be seen that these two collectors did not exhaust the store of peculiar local forms. The localities mentioned will be more easily traced by referring to Mr. Styan's own paper in 'The Ibis.'

RHINOPITHECUS ROXELLANÆ. (Plate XXXI.)

Semnopithecus roxellanae, M.-Edw. C. R. Acad. Sci. 1870, t. lxx. p. 341.

Rhinopithecus roxellanae, M.-Edw. Rech. Mamm. p. 253, pls. 36, 37 (1874).

♂, ♀. Yang-liu-pa, N.W. Sechuen.

The female agrees fairly well with the figures given by M. Milne-Edwards. The chief differences are that the whole forehead is uniformly coloured bright orange; there are no light patches over the eyes; the ears are covered with cream-coloured hair; the front of the face beneath the eyes is clothed with the same orange-coloured hair as the rest of the face, so that only the nose and the rings round the eyes are naked; the upper lip has a few projecting white hairs. The hands are pale yellow, the dark colour ending on the forearm.

The male (figured, Plate XXXI.), which is a very aged animal, differs principally from the female in the brighter and more rufous tint in the colour of its fur. The face is not so well clothed with fur, the hair beneath the eyes being scant and adpressed and not

bushy as in the female. The cheeks, throat, and sides of the head and neck are bright red-rust colour; the crown of the head and nape are rich red-brown, instead of being nearly black. The inner sides of the limbs, and upper sides of the hands and feet are much more richly coloured orange or bright golden red. The hairs on all parts are very lustrous.

The measurements of the skull of this old animal are very much larger than those given by M. Milne-Edwards: the breadth of the face outside the orbit is 90 millim., the greatest expansion of the zygomata 100; while the breadth of the constriction behind the eyes is 51, as in the younger specimen. The base of the skull has been cut away, so that it is not possible to give very full measurements.

RHINOLOPHUS ROUXI.

Rhinolophus rouxi, Temminck, Mon. Mamm. ii. p. 30 b.

♂. Chin Teh, Anhwei.

A small, almost uniform reddish-brown Bat; the forearm measures 45 millim., or 1.75 inch.

VESPERTILIO DISCOLOR SUPERANS.

Vespertilio discolor superans, Thomas, P. Z. S. 1898, p. 770.

Sa Sa hu, Ichang.

This large form described recently seems well worthy of the distinguishing name that has been applied. In the present specimen the forearm measures 54 millim., the thumb without the claw 7.

NECTOGALE ELEGANS.

Nectogale elegans, M.-Edw. C. R. Acad. Sci. 1870, t. lxx. p. 341; Rech. Mamm. 1874, p. 266, pls. 39, 39 A. fig. 1.

♀. Yang-liu-pa, N.W. Sechuen.

This specimen agrees in every particular with the description given by M. Milne-Edwards.

There are two specimens of *Nectogale* from Sikhim in the British Museum; these two are larger and much more brown in colour, and have the lower parts of a much less pure white, the colour of the upper parts blending with that of the lower, there being no sharp dividing line. The whole tint of the animal is more brown, the pale ridges of the tail are buff-coloured, and even the longer glistening hairs of the body are inclined to yellow. When wet the iridescent colours are purple and not green.

In its dentition the most evident distinction is, that the shorter cusp of the large incisor is cut away so that the line of the anterior edge of this cusp is continuous with the anterior edge of the next tooth. I name this Himalayan form *Nectogale sikhimensis*.

I have taken as a type No. 96. 1. 1. 9 in the British Museum, collected by Surg.-Maj. Waddell, Oct. 1891, at Lathong, 10,000 ft. alt.

CHIMARROGALE STYANI, sp. n.

Above uniform dark slate-black; from the shoulders backwards interspersed with shining white hairs, which increase in length and numbers on the rump, similar to but to a far less extent than found in *Nectogale*; all the underparts, with the upper lip and side of face to the height of the eye, white washed with yellow, a sharp line dividing the dark and light surfaces. Fore and hind feet white except a narrow line on the dorsal surface running towards the 5th finger and toe on the outer side. Tail almost exactly as in *Neomys* (= *Crossopus*); and in fact the whole animal so closely resembles our Water-Shrew that it is hard to believe that it does not belong to the same genus.

Breadth of skull across squamosals 11 millim., narrowest inter-orbital constriction 5, front of incisors to back of palate 11·7, greatest width outside molars 7, tip of incisors to tip of pm. 4 5. Mandible—greatest length (tip of incisors to condyle) 14; angle to coronoid 5.

“♀ length 6 inches; eyes black.”

Type B.M. No. 99. 3. 1. 8.

Yang-liu-pa, N.W. Sechuen, 16 June, 1897.

Measurements of dry skin: head and body 108 millim., tail 61, hind foot 20.

Very slight stain on the teeth, perhaps rather less than in *C. himalaica*; viewed from the side, the three intermediate teeth are subequal, slightly longer than the front cusp of pm. 4; viewed from above, the first of these small teeth appears rather larger than either of the two posterior, which are equal.

SORICULUS HYPISIBIUS, sp. n.

The entire animal almost uniformly coloured dull dark brown-soot colour, the underparts only very slightly paler in tint; the fore and hind feet pale; the tail long; teeth $\frac{s}{6} = 28$.

♂. Yang-liu-pa, November, 1897.

Type B.M. No. 99. 3. 1. 10.

Measurements taken from the dried skin: head and body 84 millim., tail 65, hind foot 15.

Skull—width across squamosals 8·7, narrowest interorbital constriction 4·7, front of incisors to back of palate 9, width outside ms. 1 6·1, tip of incisors to tip of pm. 4 3·6. Mandible—greatest length (tip of incisors to tip of condyle) 12·3, to angle 11·5; angle to coronoid 4·5.

The first five teeth in the upper jaw are tipped with red, the colour extending on the teeth in proportion to their size; of the three intermediate teeth the first is about double the size of either of the others, the second being only very slightly longer than the last.

In the lower jaw the first three teeth only are tipped with red. There is no red on the molars of either jaw. The lower jaw has a very short and small angle. The skull is lighter, narrower, and lower in the facial portion than *S. minor* from Manipur.

There is no trace of any small vestigial tooth in front of the large upper premolar. The definition of the genus will therefore have to include animals with from 28 to 32 teeth, and in so handy and small a genus there is no need for further subdividing it.

TALPA LONGIROSTRIS.

Talpa longirostris, M.-Edw. C. R. Acad. Sci. lxx. 1870, p. 341 ; Rech. Mamm. p. 281, pl. 38. fig. 2, pl. 17 A. fig. 2 (1871).

♂ . Yang-liu-pa, N.W. Sechuen.

The single specimen of this rare Mole is uniformly coloured black with no brown shade in the fur, as suggested by the figure accompanying the original description of the species.

ÆLUROPUS MELANOLEUCUS.

Ailuropus melanoleucus, M.-Edw. Rech. Mamm. p. 321 (1870).

♂ . Yang-liu-pa.

ARCTOMYS HIMALAYANUS.

Arctomys himalayanus, Hodgson, J. A. S. B. 1841, x. p. 777.

A. robustus, M.-Edw. Nouv. Arch. Mus. t. vii. 1870, p. 92.

2 skins, N.W. Sechuen.

These two specimens seem to agree in every respect with skins of *A. himalayanus* from Sikhim in the British Museum. The skulls have unfortunately been lost, but the want is filled up by those of specimens obtained by Berezowski in the same locality; and as these agree likewise with the skulls of *A. himalayanus*, I shall follow Dr. Blanford (Mamm. Second Yarkand Mission, p. 36) in regarding the name *A. robustus* as a synonym of this species.

CRICETUS (CRICETULUS) OBSCURUS.

Cricetus (Cricetulus) obscurus, M.-Edw. Rech. Mamm. p. 136, pl. 12. fig. 3, pl. 13. figs. 3, 3 b (1874).

♂ , ♂ , ♂ , ♂ ; ♀ . North Shantung.

These agree in every way with the figures and description of the species, and also with a specimen in the British Museum labelled Siberia, but which may possibly be one of Père David's collecting, as it was obtained from an agent in Paris.

CRICETUS (CRICETULUS) TRITON, sp. n.

Colour uniform drab, fur rather richer in tone on the dorsal line, but no distinct streak; underparts whitish, the blue-grey of the bases of the fur mixing with the white of the extreme tips.

♂ , ♀ . N. Shantung, 24 May, 1898.

Type ♀ . No. 99. 3. 1. 14 in the British Museum.

Measurements taken from dried skin: head and body 150 millim., tail 65, hind foot without claws 21, ear (c.) 16 × 14.

Skull—greatest length 34, greatest breadth 19·7, breadth of brain-case 15, narrowest interorbital constriction 5·5, length of nasals 12·1, back of incisors to back of palate 15·3, length of palatal

foramina 7, length of diastema 9·9, length of molar series 5·1, across molar series 7. Mandible—tip of incisors to condylar process 23·5, to coronoid 19·5, coronoid to angle 10·1; bulla, antero-posterior length 8.

Molars in almost parallel rows. Upper incisors rather darker than lower, pale orange.

The length of the tail in proportion to its size, and also the characters and general shape of the skull, show that this species is more closely allied to *C. longicaudatus* than to any of the other known forms; the size, however, is so much greater, that there can be no hesitation in distinguishing it under a separate name. The two specimens agree absolutely in every way. Mr. Styan compared one of the specimens with the type of *C. longicaudatus* in the Paris Museum, and considers them perfectly distinct species.

LEPUS SECHUENENSIS, sp. n. (Plate XXXII.)

In the general pattern of the markings, the shape and length of the ears, and the texture of the fur resembling *L. europæus*. The fur of almost the whole of the upper surface has long black tips with a subterminal fawn-coloured band, and, owing to the coat being much waved, a very rich mottling is produced; the underfur is drab-white; the nape dull greyish brown; the shoulders and fore legs red-fawn; the backs and bases of the outside of the ears blue ash-grey; the tips of the ears are edged with black, and there is a large spot of this colour extending an inch or more down the ears on the hinder surface; the cheeks in front of the eyes grey; the rump and thighs ash-grey; the belly is pure white, but the fur is greyish at the extreme base; the tail is rather long, dark grey above, the broad black line extending the whole length, but most of the hairs have white tips; beneath, the hairs of the tail are grey for more than half their length, with pure white tips.

Type in the British Museum, No. 99. 3. 1. 19.

Collector's note: "♀, Dunpi, N.W. Sechuen, October, 1897; eyes yellow-brown."

Another specimen obtained at the same time is not labelled.

The skull of this Hare very closely resembles that of *L. hypsibius*, Blanford, Mamm. Sec. Yarkand Mission, 1879, pl. iv. a. fig. 1, the only apparent difference being that it is rather larger in every measurement, its greatest length being 97 millim., or about a quarter of an inch longer than the figure, a difference of no value whatever.

In describing this species as distinct, I am therefore relying solely upon external characters; the principal of which, in the absence of specimens of *L. hypsibius* for comparison, must be the colour of the ears and the tail—two very characteristic features among Hares; in these two forms they are as distinct as it is possible to be.

The pure French grey of the back of the ears and the large jet-black tips are particularly striking; the tail with the black upper

surface only frosted with white must be very different to the "tail white throughout" of *L. hypsibius*.

There is no other Hare in any way nearly related to this Sechuen form, *L. oistolus* (= *L. pallipes*) being a far smaller animal; and although the skins at my disposal are in too bad condition to make fair comparison, the skulls show very wide differences, and prove that these two Hares belong to quite distinct groups.

The grooves of the upper incisors are filled with cement; the infolded enamel, seen on the cutting-edge of the tooth, has its sides almost in contact, so that the cement forms a simple straight line, rather nearer the inner than the outer edge of the tooth. The front face of each tooth is almost evenly sloped off towards the sides, the portion on the inner side of the grooves being only very slightly or barely perceptibly raised.

LEPUS SWINHOEI.

Lepus swinhoei, Thomas, Ann. Mag. N. H. ser. 6, vol. xiii. p. 364 (1894).

♂. Mahsien, Shensi.

OCHOTONA TIBETANA.

Lagomys tibetanus, M.-Edw. Rech. Mamm. p. 314, pls. 48, 49. fig. 1.

This little Pika is very much like *O. roylli* from Sikhim, but is a smaller animal.

I now add Mr. Styan's notes on seven species of Chinese Squirrels:—

1. *SCIURUS VULGARIS* L. (probably subsp. *calotus* Gray.)

Pekin. Greyish black above.

2. *SCIURUS DAVIDIANUS* M.-Edw.

Pekin, N.W. Sechuen, Shensi, Hupeh.

A mountain species, probably mostly found at high altitudes.

S. davidianus consobrinus Berezowski does not seem really separable.

3. *SCIURUS PERNYI* M.-Edw.

West Hupeh, North Kweichow, Anhwei, N.W. Fokien, Yunnan.

A mountain species probably not descending below 3000 ft.

S. flavipectus David, Journ. 3^{me} Voy., refers to this Squirrel.

4. *SCIURUS PYRRHOMERUS* Thos.

Ichang and Sinyang (Kweichow).

Also a mountain species; only found hitherto in the above mentioned two localities.

5. *SCIURUS CASTANEOVENTRIS* Gray.

Chekiang, Fokien, &c.

A mountain species found right down to the foot of the hills, but not extending on to the plains; common in above two maritime provinces.

I once entered a hillside hollow, one side of which was a rocky precipice about 50 ft. high. On the ledges of this a score or two of Squirrels were collected, and many others were in some small firs in the centre of the hollow; there appeared to be a large colony of them.

6. *SCIURUS STYANI* Thos.

? *Macroxus chinensis*, Gray, Ann. Mag. N. H. ser. 3, xx. 1867, p. 282.

Macroxus griseopectus, Gray, loc. cit. (nec Blyth).

Sciurus styani, Thomas, Ann. Mag. N. H. ser. 6, xiii. 1894, p. 363.

I think there is little doubt that these names all refer to one species. Some years ago I pointed out to Mr. Thomas that these pale-yellow bellied Squirrels (*S. griseopectus* of Gray) were distinct from *S. castaneiventris*, to which species they were assigned in the Museum. Finding the former name was preoccupied, Mr. Thomas renamed the species after me; but an examination of the old faded types of Gray's *S. chinensis* leads me to think that this form had no need of a new name. The skulls, however, have not been removed from the types of this latter form, so there is just a possibility that there are two species, for one of which we do not know the locality.

Its range appears to be the Yangtse valley from Kiu Kiang (Kiangsi) downwards (possibly found higher up the valley, but I have not met with it), spreading over the delta, where it is very common on the flat country between Shanghai and Hangchow. It is mostly confined to the plains, but is found occasionally on the low foot-hills.

7. *SCIURUS SWINHOEI* M.-Edw.

S. macclerliandii var. *swinhoei*, M.-Edw. Rech. Mamm. p. 308 (1868).

N.W. Sechuen, Chinteh, Chekiang, Fokien.

It will be noticed that this species ranges from the extreme west of China to the coast, and is found at altitudes ranging from 500 ft. to 5000 ft. and probably much higher. A series of about 50 skins has not enabled me to find any constant characteristics by which subspecies can be clearly separated. I have not come across the far brighter and handsomely striped *S. rodolphi* (so labelled in the British Museum) in the districts in which my collections have been made.

EXPLANATION OF THE PLATES.

PLATE XXXI.

Rhinopithecus roxellanae (male), p. 572.

PLATE XXXII.

Lepus sechuenensis, p. 576.



J. Smit del. et lith.

Miner Bros. imp.

RHINOPITHECUS ROXELLANÆ.

